Thoth Moselle Release Planning

Overview

Project Name	Enter the name of the project
Target Release Name	Moselle
Project Lifecycle State	TBD

Scope

This project aims to build **machine-Learning models** and **tools** that can be used by Telcos (typically by the operations team in Telcos). Each of these models aims to solve single problem within a particular category.

Requirements

Category	Jira Reference	Description
Model	https://jira.anuket.io/browse/THOTH-1	1. **Existing**: Cleanup and publish the existing (FP) one. We may have to publish in a more usable form (part of a framework, or Python program). 2. **Ongoing**: Log Analysis (BERT). **Openstack Logs (nova-*, neutron-* ...). Currently openstack logs from a very small (3 computes, 2 controller, 1 Storage) openstack setup is being used.**
Tools	https://jira.anuket.io/browse/THOTH-2	1. Existing: Cleanup the AlgoSelector. 2. Ongoing: Data Selection/Anonymization. 3. Ongoing: Chaos* (stress-ng) – Used in the testbed (Intel Pod18, for ex.. but restricted to K8S cluster)
Framework (MaaS)	https://jira.anuket.io/browse/THOTH-1	Upstream: Kubeflow/Acumos. Thoth: Kubeflow + Supervised Techniques + Integration with important Data-Pipelines/Sources
WhitePaper (Research effort)	https://jira.anuket.io/browse/THOTH-3	AI/ML & Kubernetes (CN-NFV)

Provide a list of features or use cases, documented as Epics or Stories in Jira. Use the Jira issue insertion feature for Confluence.

Release Artifacts

Indicate the work product (Executable, Source Code, Library, API description, Tool, Documentation, Release Note, etc) for this release.

Name	Description	Format (Container, Compressed File, etc.)
ML-Models	1. Failure Prediction Model 2. Log-Analysis	1. Jupyter notebook 2. Python Application (Adaptable to ML-Framework) 3. Containerized ML-Model (Kubernetes based ML-Framework).
Tools	Data Extraction	Python Application - Jupyter Notebook
Research Studies	AI/ML problems in NFV, OSS Frameworks AI/ML & Kubernetes in NFV	.md files and/or pdf files.
ML-Framework	Upstream ML framework project	Integration Code.

Architecture

High level architecture diagram

Insert diagram or link.

Internal Dependencies

List any Anuket projects on which this release is dependent and describe the dependency.

External Dependencies

RI-1 and RI-2 Deployment

Test and Verification

Test Dataset

Risks

Availability of dataset

Risk Description	Mitigation Plan